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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,325

11/18/2003

Anita Liberman

1662/61702

8274

26646 7590 01/16/2007
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EXAMINER

MORRIS, PATRICIA L

ART UNIT

PAPER NUMBER

1625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/717,325

Applicant(s)

LIBERMAN ET AL.

Examiner

Patricia L. Morris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 8-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 29-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Claims 1-7 and 29-38 are under consideration in this application.

Claims 8-28 remain held withdrawn from consideration as being drawn to nonelected subject matter 37 CFR 1.142(b).

Election/Restrictions

The restriction requirement is deemed sound and proper and is hereby maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 and 29-38 are rejected under 35 U.S.C. 102(a), (b) and/or (c) as being anticipated by Vreecer et al., Kotar et al., Choi et al., Nohara et al., Kato et al. and Avrutov et al. I, II. for the reasons set forth in the previous Office action.

The declaration under 37 CFR 1.131 filed January 24, 2006 removes the reference of Singer et al. based on applicants' assertion that they constructively reduced the invention to practice prior to August 21, 2002 continuously up to February 5, 2003.

Vreecer et al., Kotar et al., Choi et al., Nohara et al., Singer et al., Kato et al. and Avrutov I, II specifically disclose the instant compound and compositions. Note, example 1 of Choi et

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al, examples 2-16 of Singer et al. or claim 7 of Kato et al.. Hence, the instant compound is deemed anticipated therefrom.

Contra to applicants' arguments in the instant response, a novel chemical product is identified first by its "chemical nature", i.e, elemental and atom content. Applicants allege that the claims are not drawn to polymorphs. The alleged stable compound is very similar to polymorphs. It is well known that polymorphs are different arrangements and/or different conformations of the **same pure substance** in which the molecules have different arrangements and/or different conformations of the molecules. See Brittain p. 1-2. Applicants are merely claiming a compound well known in the prior that has the same chemical structure. The claimed compound does not have difference in chemical structure from the prior art compound.

Allegations by applicants do not take place of objective evidence showing that the alleged "stable" compound is any different from the prior art. See Brittain page 185. Choi et al. recites a compound free of impurities.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 and 29-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Vcer et al., Kotar et al., Choi et al., Nohara et al. Singer et al., Kato et al., and Avrutov et al. I, II in view of Hableblan et al, Chemical & Engineering News, US Pharmacopia, , Muzaffar et al., Jain et al. Taday et al. and Concise Encyclopedia Chemistry for the reasons set forth in the previous Office action.

Again, the references teach the stable crystal forms of the instant known compound and as well as the pharmaceutical compositions. Note claim 7 of Kato et al., example 1 of Choi et al. or example 3 of Avrutov et al. II . Habeblian et al., Muzaffar et al., Jain et al. and Taday et al. teach that the compounds exist in different crystalline forms. Chemical & Engineering News, Muzaffar et al., US Pharmacopia and Concise Encyclopedia teach that at any particular temperature and pressure, only one crystalline form is thermodynamically stable. Hence the claimed crystalline form as well as its relative selectivity of properties *vis-a-vis* the known compound are suggested by the references. It would appear obvious to one skilled in the art in view of the references that the instant compound would exist in different stable crystalline forms. No unexpected or unobvious properties are noted.

Applicants' allegations do not take the place of objective evidence. Applicants admit in the instant response that it is impossible to remove all impurities and obtain 100 percent of the claimed compound. Yet applicants are claiming an alleged chemically stable compound.

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Applicants have failed to show that the instant compound is anymore stable then the prior art compounds. Bote page 185, lines 4-7 of Brittain et al.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 29-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Again, there is a lack of description as to whether the pharmaceutical compositions are able to maintain the compound in the stable form claimed. Processing a compound into a pharmaceutical composition could create a different form than the stable form being claimed or even back to the compound itself. See pages 912-913 of Habeblian. Jain et al., pages 322-326 teach that manufacturing processes affect polymorphs. Taday et al. on page 831, teach “..Once in the desired crystalline form, the polymorphic state may be changed by incorrect storage or even during tablet preparation”. Doelker et al. Abstract, “One may also observe changes in technology or pharmaceutical properties that are due to polymorphic environmental conditions undergone by the product or dosage form.” The specification fails to describe the compounds and pharmaceutical compositions claimed in terms of their X-ray diffraction pattern or infrared

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spectrum data. The X-ray diffraction and Infrared spectrum data in the specification only pertains to the compounds rather than the compositions being claimed. Note Taday et al., page 836, figure 8, wherein the compound of four form in pharmaceutical composition resulted in similar spectra i.e. form.

Chemical & Engineering News discloses that formulation of drugs or pharmaceuticals in its metastable forms, for example, one polymorph, is highly unpredictable. The metastable forms will disappear and change into the most thermodynamically stable form. The specification lacks description of how the pharmaceutical composition can be prepared in order to maintain the particular compound of a particular form with the particular infrared spectra and X-ray diffraction being claimed. The specification has also not described how the stable form and compositions being claimed will be maintained and prevented from converting to other forms. Jain et al., p 322-326, recite the manufacturing processes that affect polymorphs. Otsuka et al. On page 852 states « in formulation studies and the method preparing CBZ has been shown to affect the drug's pharmaceutical properties through the polymorphic phase transformation of the bulk CBZ powder during the manufacturing process”.

Applicants merely assert that the instant compounds are not polymorphs. However, the instant compounds behave similarly to polymorphs. Contra to applicants' arguments in the instant response, the specification lacks description and enablement that the pharmaceutical compositions contain the “stable form” without transformation. Applicants assert that the instability of the compound is caused by chemical changes. The prior art of record clearly show that pharmaceutical preparing processes causes changes.

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The specification lacks direction or guidance for placing all of the alleged products in the possession of the public without inviting more than routine experimentation. Applicants are referred to In re Fouche, 169 USPQ 429 CCPA 1971, MPEP 716.02(b).

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is undue. These factors include 1) the breadth of the claims, 2) the nature of the invention, 3) the state of the prior art, 4) the level of one of ordinary skill, 5) the level of predictability in the art, 6) the amount of direction provided by the inventor, 7) the existence of working examples, and 8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

The nature of the invention

Claims 29-38 are drawn to pharmaceutical compositions containing a chemically stable compound.

State of the Prior Art and predictability

The pharmaceutical formulation field is well aware that compounds when formulated into compositions may undergo transformation, thus a particular form may not be the same after processing, compressing, etc., (See Chemical Engineering News, pages 43-35. Therefore, in absence of any description or factual evidence, how a crystalline form can be maintained in a composition to minimize transformation, no assumption can be made that the alleged stable form will be maintained upon compression, tableting, etc.

The breadth of the claims

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The breadth of the claims are drawn to the stable form and in addition to the pharmaceutical compositions.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 and 29-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Again, the expressions "comprising" and "further comprising" in claims 1-7 and 29-34 is open-ended and allows for the inclusion of other parameters not contemplated by applicants.

Contra to applicants' arguments, the claims are drawn to compounds only.

Again, the expressions sulfone derivative and sulfide derivatives in claims 6 and 34 are indefinite to their meaning.

Contra to applicants' arguments, one cannot tell from a simple reading of the claim what is being claimed. One must first conceive of the alleged sulfone and sulfide derivatives. What is meant by derivative? Where is the specific claiming and distinctly pointing out? How can applicants regard as their invention inexact concepts? The breadth of which they could not have possibly checked out with representative exemplification. The expressions are not finite.

Applicants are claiming a compound of the formula. Pure chemistry, a compound. Not a resin of general property ranges, but a pure compound. That compound used for any purpose is taken from the public in a 20-year monopoly to applicants. Then, the public is entitled to know what compound they cannot use. Yet, the claim is not specific to that compound. The public

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cannot tell what they may not use. How is the claim of the instant breadth defensible in an infringement action?

As applied to pure compounds, *In re Cavallito and Gray*, 134 USPQ 370, and *In re Sus and Schaefer*, 134 USPQ 301, are considered to set the proper applicable standard of required definiteness and support.

Claims 29-38 are improper composition claims because they fail to recite the presence of an inert carrier.

Claims 1-7 and 29-38 contains the generic name lansoprazole. Where a generic name is used in a claim as limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the generic name cannot be used properly to identify any particular material or product. A generic name is used to identify a source of goods, and not the goods themselves. In the present case, the generic name is used to identify/describe a compound having a specific chemical structure and, accordingly, the identification/description is indefinite.

The claims measure the invention. United Carbon Co. V. Binney & Smith Co., 55 USPQ 381 at 384, col. 1, end of 1st paragraph, Supreme Court of the United States (1942).

The U.S. Court of Claims held to this standard in *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, AClaims measure invention and resolution of invention must be based on what is claimed.

The C.C.P.A. in 1978 held that an invention is the subject matter defined by the claims submitted by the applicant. We have consistently held that no applicant should have limitations

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of the specification read into a claim where no express statement of the limitation is included in the claim. In re Priest, 199 USPQ 11, at 15.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 and 29-38 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 33-38 and 41-45 of copending Application No. 10/773,535 in view of Haleblian et al., Chemical & Engineering News, US Pharmacopia, Muzaffar et al., Jain et al., Taday et al. and Concise Encyclopedia Chemistry.

This is a provisional obviousness-type double patenting rejection.

Again, Ser. No 10/773,535 disclose the instant stable compound and compositions. The ancillary references teach that the mere existence of further crystalline forms of the compound is not in itself regarded as unexpected. Hence, patentable distinction is not seen.

A terminal disclaimer has not been received too date.

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Conclusion

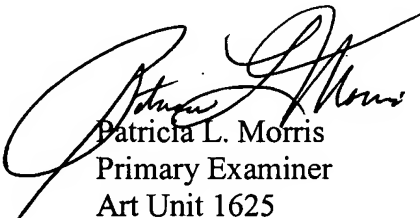
No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Morris whose telephone number is (571) 272-0688.

The examiner can normally be reached on Mondays through Fridays.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patricia L. Morris
Primary Examiner
Art Unit 1625

plm
January 4, 2007